

In the Drawings

The attached replacement and annotated sheet(s) of drawings include changes to FIG. 4:

FIG. 4 has been amended to add a *DAC* device after the last summer (+) circuit.

Attachment: Replacement sheet(s)
Annotated sheet(s) showing changes

REMARKS

The Office Action mailed December 13, 2005 has been carefully considered. Reconsideration in view of the following remarks is respectfully requested.

Drawings

The drawing figures have been corrected in accordance with the Examiner's suggestions. Specifically, FIG. 4 has been amended to add a DAC (digital-to-analog converter) device after the last summer (+) circuit. FIG. 4 is now more consistent with claim 12, which describes a first number of summer circuits (3) and a second number of DAC devices (1), the second number being greater than the first number. The change to FIG. 4 is consistent with description, in which it is explained that the outputs of the summer devices are provided to the DAC devices. See for example the second half of paragraph [0006]. No new matter has been introduced. Approval of the corrections is respectfully requested.

Specification

The specification has been amended in order to correct a minor typographical error. Specifically, the disclosure was objected to because of the following informalities: On page 4, line 2, "eaxh" should be "each."

Rejection(s) Under 35 U.S.C. § 102

Claims 1-8 were rejected under 35 U.S.C. § 102(e) as anticipated by Patrik Eriksson (U.S. pat. no. 6,570,929).

Claims 12 and 13 were rejected under 35 U.S.C. § 102(b) as anticipated by Gene L. Cangiani et al. (U.S. pat. no. 6,335,951).

Independent claims 1, 5 and 12, from which remaining claims 2-4, 6-8 and 13 depend, each recite a plurality of modulator circuits producing a digital upconverted signal of each of the channel streams. By comparison, modulators $\text{mod}_1\text{-mod}_N$ of Eriksson, and modulators 84 of

Cangiani, do not perform this function but instead require the operation of multipliers $Mult_1$ - $Mult_N$ to perform the upconversion. This introduces additional circuitry and raises the cost and power requirement, and detracts from the efficiency of the system.

It will be appreciated that, according to the M.P.E.P., a claim is anticipated under 35 U.S.C. § 102 only if each and every claim element is found, either expressly or inherently described, in a single prior art reference.¹ The aforementioned reasons clearly indicate the contrary, and withdrawal of the 35 U.S.C. § 102 rejections based on Eriksson and Cangiani is respectfully urged.

Rejection(s) Under 35 U.S.C. § 103 (a)

Claims 9-11 were rejected under 35 U.S.C. § 103(a) as unpatentable over Faramaz Davarian (U.S. pat. no. 4,812,786) in view of Patrik Eriksson (U.S. pat. no. 6,570,929).

Claim recites, *inter alia*, a plurality of modulator circuits “each having first and second outputs.” The Office Action claims that Eriksson remedies the failure of Davarian to show a plurality of modulator circuits; however, the Office Action does not take into account the claimed first and second outputs of the modulator circuits, or the manner in which the modulator circuits are arranged in the remainder of the claimed arrangement. Further, the Office Action relies on the sample generators 20 and 22 of Davarian to read on the claimed summer circuits. It is respectfully submitted that such devices are different from summer circuit, which have different structure and function as set forth in the specification. Therefore even if Davarian and Eriksson were properly combinable, which is not conceded, the presently claimed invention would not result. It will be appreciated that according to the Manual of Patent Examining Procedure (M.P.E.P.),

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a

¹ Manual of Patent Examining Procedure (MPEP) § 2131. See also *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.²

In this case there is neither a suggestion or motivation to combine the references, nor would the combined references teach or suggest all the claim limitations. For these reasons at least, the obviousness rejection based on Davarian and Ericksson is improper and should be withdrawn.

Conclusion


In view of the preceding discussion, Applicants respectfully urge that the claims of the present application define patentable subject matter and should be passed to allowance.

If the Examiner believes that a telephone call would help advance prosecution of the present invention, the Examiner is kindly invited to call the undersigned attorney at the number below.

Please charge any additional required fees, including those necessary to obtain extensions of time to render timely the filing of the instant Amendment and/or Reply to Office Action, or credit any overpayment not otherwise credited, to our deposit account no. 50-1698.

Dated: 6/13/06

Respectfully submitted,
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² M.P.E.P § 2143.

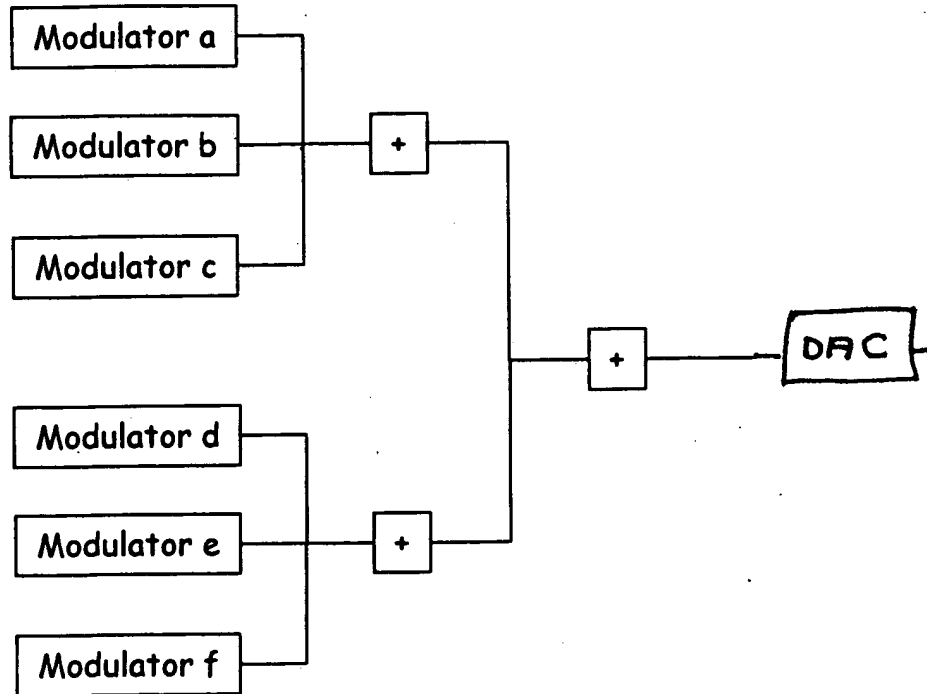


Figure 4
SYSTEM AND METHOD FOR UPCONVERTING
STACKED INTERMEDIATE FREQUENCY CARRIERS